FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

OBRIEN.002DV2

APPLICANT

O'Brien, J.S., et al.

(USE SEVERAL SHEETS IF NECESSARY)

ATTY. DOCKET NO.
OBRIEN.002DV2

APPLICANT

O'Brien, J.S., et al.
FILING DATE

GROURGH

GROURGH

Usknown

Unknown

SERIAL NO.
1995

EXAMINER INITIAL	DOCUM	ENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE
TRITIAL		ПТТ			1		(II AITKORKIAIL
						· · ·	
					<del>  \</del>		<del></del>
						/	
						*	

										FOREIGN PATENT DOCUMENTS				
EXAMINER		DOCUMENT NUMBER				DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION				
INITIAL													YES	NO
	-	9-	3	1,	1	2_	а	8-	06/10/93	PCI No capu			•	
	,												-	

EXAMINER INITIAL		OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
RCH	Α	Aderka, D. et al., IL-6 inhibits lipopolysaccharide-induced tumor necrosis factor production Jour. of Immunol. 143(11):3517-3523 (1989).
	В	Banks, W., et al. Permeability of the blood-brain barrier to peptides: an approach Peptides 13:1289-1294 (1992).
	С	Barde, Y.A. Trophic factors and neuronal survival. Neuron 1:1525-1534 (1989).
	D	Baringe, M. Neurotrophic factors enter the clinic. Science 264:772-774 (1994).
	Ε	Bazan, J. Neuropoietic cytokines in the hematopoietic fold. Neuron 7:197-208, (1991).
	F	Bradová, V. et al. Prosaposin deficiency: further characterization of the sphingolipid activator protein- deficient_sibs. Human Genetics 92:143-152 (1993).

EXAMINER	1 3	Vaya		DATE CONSIDERED	<i>(</i>			
*EXAMINER: II CONFORMANCE AND			ONSIDERED, WHETHER CLUDE COPY OF THIS I			DRAW LINE TH	ROUGH CITATION	IF NOT IN

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.
OBRIEN.002DV2
APPLICANT

SERIAL NO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(USE SEVERAL SHEETS IF NECESSARY)

O'Brien, J.S., et al.

FILING DATE

June 7, 1995

GROUP PAL S TO

								U.S. PATENT DOCUMENTS			
EXAMINER INITIAL	DOCUMENT NUMBER						DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
	$\sqcup$					1					
	$\perp \perp$	_	_			4				ļ	
	$\downarrow \downarrow$		-		Ш	_			\	ļ	
		_	_		Ш					<u> </u>	
				_	$\sqcup$					\	
	$\sqcup$	_	-	_							
·	$\sqcup$		↓_	_	$\sqcup$	_				$\vdash$	
	-	+	igaplus		$\square$	$\perp$				<del>                                     </del>	
	1_1			}			0			'	

					_	FOREIGN PATENT DOCUMENTS				
EXAMINER	DO	CUMEN	T NUM	SUBCLASS	TRANSLATION					
INITIAL				<b>,</b>					YES	NO
									, , , , , , ,	

EXAMINER INITIAL		OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
RCH	G	Dewji, N. et al., Nucleotide sequence of cloned cDNA for human sphingolipid activator Proc. Natl. Acad. Sci. USA, 84:8652-8656 (1987).
	н	Dewji, N. et al., Molecular cloning of the sphingolipid activator proteinBiochem. and Biophys. Res. Commun. 134(2):989-994 (1986).
	I	Fonnum. A rapid radiochemical method for the determination of choline acetyltransferase. Jour. of Neurochemistry 24:407-409 (1975).
	J	Francis, M. et al., Immunological properties of hepatitis B core antigen fusion proteins. Proc. Natl. Acad. Sci. 87:2545-2549 (1990).
	K	Fürst, W. et al., The complete amino-acid sequences of human ganglioside GM2 activator protein and cerebroside sulfate activator protein. Eur. J. Biochem. 192:709-714 (1990).
	L	Gurney, M. et al., Induction of motor neuron sprouting <i>in vivo</i> by ciliary neurotrophic factor and basic fibroblast growth factor. Jour. of Neuroscience 12(8):3241-3247 (1992).

	$\overline{}$	
EXAMINER	1 ) 1	DATE CONSIDERED /
270 4 12 11 CT	1 /200	7.2/96
	1.1	
	<del>-</del>	
*EXAMINER:	INITIAL IF CITATION CONSIDERED. V	HETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609: DRAW LINE THROUGH CITATION IF NOT IN
CONFORMANCE		THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

<b>FORM</b>	PTO-	1449

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO. OBRIEN.002DV2 SERIAL NO 08/48

3 OF 8

APPLICANT

O'Brien, J.S., et al.

FILING DATE

GROUP Unknown

(USE SEVERAL SHEETS IF NECESSARY)

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

June 7, 1995

							U.S. PATENT DOCUMENTS			
EXAMINER INITIAL	DOCUMENT NUMBER					DATE	NAME	CLASS	FILING DATE (IF APPROPRIATE)	
			9						\	
								:		

								FOREIGN PATENT DOCUMENTS				
EXAMINER	DC	CUM	ENT	NUM	BER		DATE	COUNTRY	CLASS	SUBCLASS	TRANSI	LATION
INITIAL											YES	NO
	П										•	
	1											
	Γ		Γ									
		Γ										
	1					П						

EXAMI INIT:			OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
Res	1	М	Hefti, F. et al., Function of neurotrophic factors in the adult and aging brain Neurobiology of Aging 10:515-533 (1989).
		N	Henderson, C. et al., Neurotrophic factors in development and plasticity of spinal neurons. Restorative Neurology and Neuroscience 5:15-28 (1993).
		0	Hiraiwa, M. et al., Binding and transport of gangliosides by prosaposin. Proc. Natl. Acad. Sci. USA, 89:11254-11258 (1992).
		Р	Hiraiwa, M. et al., Isolation, characterization, and proteolysis of human prosaposin Arch. Biochem. Biophys. 304(1)110-116 (1993).
		Q	Hofer, M. et al., Brain-derived neurotrophic factor prevents neuronal death in vivo. Nature 331:261-262 (1988).
	r <sub>.</sub>	R	Ip, N. et al The neurotrophins and CNTP: specificity of action toward PNS and CNS neurons. J. Physiol., 85:123-130 (1991).

EXAMINER	( ) tayer	DATE CONSIDERED 7/17/96
*EXAMINER:	INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION AND NOT CONSIDERED, INCLUDE CORY OF THIS FORM WITH NEXT OF	IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN

	- 6-4
•	~/
_	_

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO. OBRIEN.002DV2

June 7, 1995

SERIAL NO. 08/484,594

**APPLICANT** 

O'Brien, J.S., et al. FILING DATE

GROUP, 312

BY APPLICANT

(USE SEVERAL SHEETS IF NECESSARY)

INFORMATION DISCLOSURE STATEMENT

U.S. PATENT DOCUMENTS EXAMINER INITIAL FILING DATE (IF APPROPRIATE) DOCUMENT NUMBER DATE NAME CLASS SUBCLASS

							FOREIGN PATENT DOCUMENTS					
EXAMINER		DOCU	MENT	r NU	MBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION		
INITIAL										YES	NO	
							No.					
		T										
		T										

EXAMINER INITIAL		OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
BOH	S	Kishimoto, Y. et al., Saposins: structure, function, distribution, and molecular genetics. Jour. of Lipid Research, 3:1255-1268 (1992).
	Т	Kleinschmidt, T. et al. Complete amino-acid sequence and carbohydrate content of the naturally occurring glucosylceramide activator protein Biological Chemistry Hoppe-Seyler 368(12):1573-1578 (1987).
	U	Kondoh, K. et al. Distribution of prosaposin-like immunoreactivity in rat brain. Jour. of Comparative Neurology 334:590-602 (1993).
	٧	Kondoh, K. et al. Isolation and characterization of prosaposin from human milk. Biochem. and Biophys. Res. Commun. 181(1):286-292 (1991).
	W	Krystal, G. A simple microassay for erythropoietin based on 3H-thymidine incorporation Exp. Hematol. 11(7)649-660 (1983).
1	х	Kwon, Y. et al., Systemic injections of ciliary neurotrophic factor induce sprouting by adult motor neurons. Neuroreport 5:789-792 (1994).

EXAMINER	(1)-6	uyes.	DATE CONSIDERED 7/17/96	
*EXAMINER: CONFORMANCE			HER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROWN SERVICE OF THE SERVICE OF	JGH CITATION IF NOT IN

			5 UF
FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE	ATTY. DOCKET NO.	SERIAL NO.
10101110 1443	PATENT AND TRADEMARK OFFICE	OBRIEN.002DV2	08/484.54
		APPLICANT	3 33%
INFORMATIO	ON DISCLOSURE STATEMENT	O'Brien, J.S., et al.	
	BY APPLICANT	FILING DATE	GROUP, P. 10
(USE SEVER	RAL SHEETS IF NECESSARY)	June 7, 1995	Unknown MT. & IRAN

									U.S. PATENT DOCUMENTS	· · · · · · · · · · · · · · · · · · ·			
XAMINER INITIAL			DOCU	MENT	NUM	BER	C	ATE	NAME	CLASS	SUBCLASS	FILIN (IF APP	G DATE ROPRIATE
			_	$\perp$		$\sqcup$							
				1							ļ		
				┸						$\longrightarrow$	<u> </u>		
		_	4	4		$\sqcup$					ļ		
			$\perp$	4-	┡	$\sqcup$				·····	<b>\</b>		-
		_	+	+	-	$\sqcup$					<del>\</del>		
			+	+	╀	$\vdash$					<del>                                     </del>	<u> </u>	
		$\dashv$		+-	╀	$\vdash$					+		
			+	+-	╀	╁	_				<del>  \                                   </del>		
					<u> </u>	Ш					1 1	1	
									FOREIGN PATENT DOCUMENTS				
XAMINER			DOCU	MENT	NUM	BER	0	ATE	COUNTRY	<b>C</b> LASS	SUBCLASS	TRANS	SLATION
INITIAL												YES	NO
			$\perp$	<u> </u>							<b>\</b>		
		_	_	4	_	$\square$					1		
			_	<u> </u>			_		***		$\vdash \!$		
			-	╁	-	$\vdash \vdash$					<b> </b>		-
				<u> </u>	_						<u></u>	<u> </u>	l
XAMINER INITIAL		-				ОТН	er docu	MENTS	(INCLUDING AUTHOR, TITLE, DATE, P	ERTINENT PAGES.	ETC.)		•
RCH	Υ	Lamo	ntagr of	ne. S	5. et . Ch	tal.	Modul 269:205	ation 28-20	of human saposin B sphingolipid-b 32 (1994).	oinding specific	ity by alte	ernative	splicing
١	Z	Lin		et al		Puri	ficatio		oning, and expression of ciliary r				
	AΑ	Line	isay.	R. 6	et a	١., ١		rotro;	ohin family of NGF-related neurotr	rophic factors.	Restorativ	/e Neurol	ogy and
	вв	Mais		erre,					ophin-3: a neurotrophic factor rel	ated to NGF and	BDNF. Sci	ience, 24	7:1446-
	СС	Mor		. S.	et a	al.,	Distri	butio	of saposin proteins (sphingolipi	d). Proc. Na	tl. Acad. S	Sci. USA,	87:3493
1	DD		moto			al.,	Saposi	n A: \$	second cerebrosidase activator pro	otein. Proc. Na	tl. Acad. S	Sci. 86:3	389-339

EXAMINER

DATE CONSIDERED

7/17/96

\*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO. OBRIEN.002DV2 SERIAL NO.

08/484.594

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(USE SEVERAL SHEETS IF NECESSARY)

**APPLICANT** O'Brien, J.S., et al.

FILING DATE

June 7, 1995

GROUP 1818 Unknown



		•						U.S. PATENT DOCUMENTS				
EXAMINER INITIAL		DO	CUM	ENT	NUME	BER	DATE	NAME	(	CLASS	SUBCLASS	FILING DATE (IF_APPROPRIATE)
							1					<del>-</del> -
								Mr.		ackslash		
	Ì									7		
										_ /		· <del>-</del> -
								affect of the state of the stat				
											\	

								FOREIGN PATENT DOCUMENTS			·		
EXAMINER		DO	CUME	NT	NUM	BER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION		
INITIAL											YES	NO	
			·										
			× -										
						8							
										\	\		

EXAMINER INITIAL		OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
RCH	EE	Morimoto, S. et al., Saposin D: A sphingomyelinase activator. Biochemical and Biophysical Research Communications 156(1):403-410 (1988).
		O'Brien, J. et al., Identification of prosaposin as a neurotrophic factor. Proc. Natl. Acad. Sci. 91(20):9593-9596 (1994).
	GG	O'Brien, J. et al., Isolation and characterization of prosaposinFASEB Jour. 6(4):A969 (1992).
	НН	O'Brien, J. et al., Saposin proteins: structure, function, and role in human lysosomal FASEB Jour. 5:301-308 (1991).
		O'Brien, J. et al., Coding of two sphingolipid activator proteins (SAP-1 and SAP-2) Science 241:1098-1101 (1988).
↓	IJ	Priestle, J.P. et al., Crystallographic refinement of interleukinProc. Natl. Acad. Sci. 86:9667-9671 (1989).

		1	
EXAMINER	(1) V	oyes .	DATE CONSIDERED 7/17/96
		7	•
*EXAMINER:	INITIAL IF	CITATION CONSIDERED.	WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN
CONFORMANCE .	and not cons	IDERED, INCLUDE COPY	OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT

BY APPLICANT

(USE SEVERAL SHEETS IF NECESSARY)

ATTY. DOCKET NO. OBRIEN.002DV2

SERIAL NO. 08/484

APPLICANT

O'Brien, J.S., et al.

FILING DATE

June 7, 1995

GROUP Unknown

EXAMINER INITIAL DOCUMENT NUMBER DATE NAME CLASS SUBCLASS FILING DATE (IF APPROPRIATE)

										FOREIGN PATENT DOCUMENTS					
EXAMINER		DOCUMENT NUMBER							DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION		
INITIAL									. <u> </u>				YES	NO	
											\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\			
													_	+	

EXAMINER INITIAL		OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
RH	KK	Purves, D. et al., Trophic regulation of nerve cell morphology and innervation Nature, 336:123-128 (1988).
	LL	Rich, K. et al., Nerve growth factor protects adult sensory neurons from cell death Jour. of Neurocytology 16:261-268 (1987).
	ММ	Rorman, E. et al., Structure and evolution of the human prosaposin chromosomal gene. Genomics 12(2):312-318 (1992).
	NN	Sano, A. et al Protection by prosaposin against ischemia-induced learining disability and neuronal loss. Biochem. and Biophys. Res. Commun. 204(2):994-1000 (1994).
	00	Sano, A. et al Saposin-C from bovine spleen; complete amino acid sequence and relation between the structure and its biological activity. Biochim. et Biophys. Acta 1120(1):75-80 (1991).
4	PP	Satomi, D. Developmental changes of glutamate decarboxylase and 2',3'-cyclic nucleotide Zoological Science 9:127-132 (1992).

	$\bigcirc$ 1	
EXAMINER	/ )\ /	DATE CONSIDERED
L/V V /ZITCK	1 / 1 / 2014	7/12/06
	VI. / Targes	///7/96
	~~~	
*EXAMINER:	INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION	IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN
CONFORMANCE AN	ND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT C	OMMUNICATION TO APPLICANT.

.

1

ATTY. DOCKET NO. U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE FORM PTO-1449 OBRIEN.002DV2 APPLICANT

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(USE SEVERAL SHEETS IF NECESSARY)

SERIAL NO O'Brien, J.S., et al. FILING DATE GRO June 7, 1995

						U.S. PATENT DOCUMENTS			
EXAMINER INITIAL	D	OCUMEN	IT NUN	1BER	DATE was	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
			T						
								1	
		П							
								1	

								FOREIGN PATENT DOCUMENTS				
EXAMINER	DOCUMENT NUMBER						DATE	COUNTRY	<b>°C</b> LASS	SUBCLASS	TRANSLATION	
INITIAL											YES	NO

EXAMINER INITIAL		OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
RCH	QQ	Soeda, S. et al., Binding of cerebrosides and sulfatides to saposins A-D*. Jour. of Biol. Chem. 268(25):18519-18523 (1993).
	RR	Sprang, S. et/al., Cytokine structural taxonomy and mechanisms of receptor engagement. Current Opinion in Structural Biology, 3:815-827 (1993).
4	SS	Triguero, D. et al., Capillary depletion method for quantification of blood-brain barrier transport of circulating peptides and plasma proteins. J. of Neurochem., 54(6)1882-1888 (1990).

	-		
EXAMINER	(1) Youper	DATE CONSIDERED 7/17/96	-
*EXAMINER:	INITIAL IF CITATION CONSIDERED, WHETHER OF	OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITA'	TION IF NOT IN

CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.